directions, and the partially geared pinion of the lateral feeding means **219** meshes with the rack **419** of the slide base **214**.

Accordingly, the slide base **214** slides along the guide rail **217** until it reaches the lateral feed limit. Even if the partially geared pinion is further rotated from this condition, the slide base **214** does not move any more because the meshing engagement between the rack and pinion is no longer established.

Meanwhile, by the function of the cam groove **420** and the cam follower of the lateral feeding means **219**, the positioning means **220** moves to its lock position. The positioning means **220** moves until it reaches the position shown in FIG. **20** and engages with the record/reproduce unit **206** at this position so as to lock it.

In this instance, the angle detecting mechanism **422** is moved by the function of its cam follower and the cam groove **422***a* formed on the lower surface of the lateral feeding means **219**. In response to movement of the angle detecting mechanism **422**, the motor **421** is stopped and therefore the speed-reduction drive source **421** is deactivated. Thereafter, the disk is transferred from the tray stocker **104** or **105** to the lifter **108** and then the record/reproduction is performed.

Furthermore, if the auto player **1** receives a door unlock command, the lateral feeding means **219** initiates rotating in a right direction under the condition that the recording/reproducing operation of the record/reproduce unit **206** is over and the disk has been returned to the original tray stocker **104** or **105**. If the lateral feeding means **219** further rotates, the door control mechanism **442***b* is displaced by the function of its cam follower and the cam groove **442** in a direction to unlock the lock mechanism **442***a* of the front door **107**.

In this case, the angle detecting mechanism **423** operates to stop the speed-reduction drive source **421**. Thereafter, the front door **107** can be opened. Immediately after the front door **107** is opened, the laterally feeding means **219** rotates in an opposite direction so as to place the lock mechanism **442** in the lock position. Then, the drive source **421** is stopped in response to the operation of the angle detecting mechanism **422**.

SECOND EMBODIMENT

Next explained will be an auto player in accordance with a second embodiment of the present invention, wherein the exchange of disks is allowed even if recording/reproducing operation is still progressing.

FIG. **22** is a perspective view showing a front side of an auto player **501** as a recording/reproducing apparatus including an auto changer for a disk-like recording medium in accordance with a second embodiment of the present invention. FIG. **23** is a circuit block diagram showing a player controller for the auto player **501** in accordance with the second embodiment of the present invention.

The tray stocker **504** has a front opening **508** for operating disks (i.e. trays **114**). The auto player **501** has two front doors **521**, **522** arrayed in an up-and-down direction so as to close the front opening **508** of the tray stocker **504**. A plurality of tray stockers **504***a*, **504***b* are provided so as to correspond to the front doors **521**, **522**.

In FIG. **23**, a player controller **507** of the auto player **501** is operatively connected with the control unit **2** of FIG. **4** so as to receive a door open command and a record/reproduce command from the control unit **2** and to send an operation report to the control unit **2**.

The player controller **507** comprises a record/reproduce processing division judging section **523** and a door control section **524**. The record/reproduce processing division judging section **523** detects an operational condition of the record/reproduce section **206** and discriminates a division of the tray stocker **504** to which the disk presently being recorded or reproduced belongs. The door control section **524** receives a judging result from the record/reproduce processing division judging section **523** and the door open command supplied from the control unit **2**. The door control section **524** performs its control on the basis of above judging result and the door open command, so as to allow a user to open a door other than the door which is related to the tray stocker **504** of the disk being presently recorded or reproduced.

The player controller **507** further comprises a stocker division judging section **525** and a record/reproduce control section **526**. The stocker division judging section **525** makes a judgement as to which stocker is related to the disk designated by the record/reproduce command supplied from the control unit **2**. The record/reproduce control section **526** generates an operation command to the record/reproduce section **206** in accordance with the open/close condition of the door which is related to the stocker of the designated disk. Or, the record/reproduce control section **526** supplies the control unit **2** with the operation report indicating a disable condition of record/reproduction.

When the door open command is received, the record/reproduce processing division judging section **523** detects an operational condition of the record/reproduce section **206** and discriminates a division of the tray stocker **504** to which the disk presently being recorded or reproduced belongs. On the basis of the judgement result of the record/reproduce processing division judging section **523**, the door control section **524** performs the door opening control variously. If the recording/reproducing operation is over, the door control section **524** unlocks all the door **521**, **522**. If the recording/reproducing operation is progressing, the door control section **524** unlocks either the door **521** or **522** which is not related to the stocker **504***a* or **504***b* of the presently recorded or reproduced disk. Accordingly, it becomes possible to exchange disks even if the recording/reproducing operation of other disk is progressing.

A door open/close detecting mechanism will be explained below. FIG. **24** is a plane view showing a door open/close detecting mechanism of the tray stocker in accordance with the present invention. FIG. **25** is a front view showing the door open/close detecting mechanism of FIG. **24**.

The auto player **501** includes an engaging mechanism **542** and a door open/close detecting means **543**. The engaging mechanism **542** engages with the door **521**. The door open/close detecting means **543** generates a signal allowing the recording/reproducing operation only when the door **521** is closed.

The engaging mechanism **542** comprises a door engaging portion **542***a* which is engageable with a hook portion **521***a* of the door **521**, a base portion **542***d* supporting the door engaging portion **542***a* and swingably extending downward, an engaging link portion **542***b* being swingable together with the base portion **542***d*, and a spring **542***c* elastically urging ,the engaging link portion **542***b* so as to maintain the door engaging portion **542***a* at an engageable position.

The door engaging portion **542***a* is provided at several portions along the vertically extending base portion **542***d*, although only one is shown in FIG. **25**. The corresponding number of the hook portions **521***a* are provided on the door **521**. The engaging link portion **542***b* is provided close to a door responsive member **545**, so that the door responsive